



RECEIVED

OCT 03 2003

TECH CENTER 1600/2900

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/667,859A

DATE: 09/30/2003

TIME: 07:50:47

Input Set : A:\08341.ST25.txt

Output Set: N:\CRF4\09302003\I667859A.raw

3 <110> APPLICANT: Kubin, Marek Z.
4 Goodwin, Raymond G.
6 <120> TITLE OF INVENTION: NK Cell Activation Inducing Ligand (NAIL) DNA and
Polypeptides,

7 and Uses Thereof

9 <130> FILE REFERENCE: AMGEN-08341

11 <140> CURRENT APPLICATION NUMBER: 09/667,859A

12 <141> CURRENT FILING DATE: 2000-09-20

14 <160> NUMBER OF SEQ ID NOS: 13

16 <170> SOFTWARE: PatentIn version 3.2

18 <210> SEQ ID NO: 1

19 <211> LENGTH: 1095

20 <212> TYPE: DNA

21 <213> ORGANISM: Homo sapiens

23 <400> SEQUENCE: 1

24 atgctggggc aagtggtcac cctcatactc ctccgtctcc tcaagggtgta tcagggcaaa	60
26 ggcatgccagg gatcagactga ccattgtggtt agcatctcg ggatgcctct tcagttacaa	120
28 ccaaacagca tacagacgaa gggttgcacgc attgcatttgcg agaagggtgct gccctcacaa	180
30 aatggatttc atcacatatt gaagtgggag aatggctctt tgccttccaa tacttccat	240
32 gatagattca gttttatagt caagaacttg agtcttctca tcaaggcagc tcagcagcag	300
34 gacagtggcc tctactgcct ggaggtcacc agtatatctg gaaaagttca gacagccacg	360
36 ttccaggttt ttgtatttga taaagtttag aaaccccgcc tacagggca gggaaagatc	420
38 ctggacagag ggagatgcca agtggctctg tcttgcttgg tctccagggg tgccatgtg	480
40 tcctatgctt ggtacagagg gagcaagctg atccagacag cagggAACCT cacctacctg	540
42 gacgaggagg ttgacattaa tggcactcac acatatacct gcaatgtcag caatccgttt	600
44 agctggaaa gccacaccct gaatctcact caggactgtc agaatgccc tcagaaattc	660
46 agatTTTGGC CGTTTTGGT gatcatcgat attctaagcg cactgttctt tggcaccctt	720
48 gcctgcttct gtgtgtggag gagaaagagg aaggagaagc agtcagagac cagtcccaag	780
50 gaattttga caatttacga agatgtcaag gatctaaaa ccaggagaaaa tcacgagcag	840
52 gaggcactt ttccctggagg gggggcacc atctactcta tgatccagtc ccagtcttct	900
54 gctcccacgt cacaagaacc tgcataataca ttatattcat taattcagcc ttccaggaag	960
56 tctggatcca ggaagaggaa ccacagccct tccttcaata gcactatcta tgaagtgatt	1020
58 gggaaagagtc aacctaaagc ccagaaccct gctcgattga gcccggaaaga gctggagaac	1080
60 tttgatgttt attcc	1095

63 <210> SEQ ID NO: 2

64 <211> LENGTH: 365

65 <212> TYPE: PRT

66 <213> ORGANISM: Homo sapiens

68 <400> SEQUENCE: 2

70 Met Leu Gly Gln Val Val Thr Leu Ile Leu Leu Leu Leu Lys Val

71 1 5 10 15

74 Tyr Gln Gly Lys Gly Cys Gln Gly Ser Ala Asp His Val Val Ser Ile

75 20 25 30

78 Ser Gly Val Pro Leu Gln Leu Gln Pro Asn Ser Ile Gln Thr Lys Val

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/667,859A

DATE: 09/30/2003
TIME: 07:50:47

Input Set : A:\08341.ST25.txt
Output Set: N:\CRF4\09302003\I667859A.raw

79	35	40	45
82	Asp Ser Ile Ala Trp Lys Lys Leu Leu Pro Ser Gln Asn Gly Phe His		
83	50	55	60
86	His Ile Leu Lys Trp Glu Asn Gly Ser Leu Pro Ser Asn Thr Ser Asn		
87	65	70	75
90	80		
91	Asp Arg Phe Ser Phe Ile Val Lys Asn Leu Ser Leu Leu Ile Lys Ala		
94	85	90	95
95	Ala Gln Gln Gln Asp Ser Gly Leu Tyr Cys Leu Glu Val Thr Ser Ile		
98	100	105	110
99	Ser Gly Lys Val Gln Thr Ala Thr Phe Gln Val Phe Val Phe Asp Lys		
102	115	120	125
103	Val Glu Lys Pro Arg Leu Gln Gly Gln Gly Lys Ile Leu Asp Arg Gly		
106	130	135	140
107	Arg Cys Gln Val Ala Leu Ser Cys Leu Val Ser Arg Asp Gly Asn Val		
110	145	150	155
111	Ser Tyr Ala Trp Tyr Arg Gly Ser Lys Leu Ile Gln Thr Ala Gly Asn		
114	165	170	175
115	Leu Thr Tyr Leu Asp Glu Glu Val Asp Ile Asn Gly Thr His Thr Tyr		
118	180	185	190
119	Thr Cys Asn Val Ser Asn Pro Val Ser Trp Glu Ser His Thr Leu Asn		
122	195	200	205
123	Leu Thr Gln Asp Cys Gln Asn Ala His Gln Glu Phe Arg Phe Trp Pro		
126	210	215	220
127	Phe Leu Val Ile Ile Val Ile Leu Ser Ala Leu Phe Leu Gly Thr Leu		
130	225	230	235
131	240		
134	Ala Cys Phe Cys Val Trp Arg Arg Lys Arg Lys Glu Lys Gln Ser Glu		
135	245	250	255
138	Thr Ser Pro Lys Glu Phe Leu Thr Ile Tyr Glu Asp Val Lys Asp Leu		
139	260	265	270
142	Lys Thr Arg Arg Asn His Glu Gln Glu Gln Thr Phe Pro Gly Gly Gly		
143	275	280	285
146	Ser Thr Ile Tyr Ser Met Ile Gln Ser Gln Ser Ser Ala Pro Thr Ser		
147	290	295	300
150	Gln Glu Pro Ala Tyr Thr Leu Tyr Ser Leu Ile Gln Pro Ser Arg Lys		
151	305	310	315
154	Ser Gly Ser Arg Lys Arg Asn His Ser Pro Ser Phe Asn Ser Thr Ile		
155	325	330	335
158	Tyr Glu Val Ile Gly Lys Ser Gln Pro Lys Ala Gln Asn Pro Ala Arg		
159	340	345	350
162	Leu Ser Arg Lys Glu Leu Glu Asn Phe Asp Val Tyr Ser		
163	<210> SEQ ID NO: 3		
164	<211> LENGTH: 2440		
165	<212> TYPE: DNA		
166	<213> ORGANISM: Homo sapiens		
167	<400> SEQUENCE: 3		
168	cggccttgtc agctcacacg aggcgtaat agcccttaat tgaggaaact gtggctggac	60	
170	aggttgcaag gcagttctgc tccccatcg tctttgtcg actggggact gctgagcccg	120	
172	tgcacggcag agagtctgggt ggggtggagg ggctggcctg gccccttgt cctgtggaaa	180	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/667,859A

DATE: 09/30/2003

TIME: 07:50:47

Input Set : A:\08341.ST25.txt

Output Set: N:\CRF4\09302003\I667859A.raw

174	tgctggggca	agtggtcacc	ctcatactcc	tcctgctcct	caaggtgtat	cagggcaaag	240										
176	gatgccagg	atca	gtac	catgtggta	gcac	tctcg	300										
178	caa	ac	ac	ac	ga	ttgt	360										
180	atggatttca	tcacatatt	aagtgggaga	atggctctt	gccttcaat	acttccaat	420										
182	atagattcag	tttatagtc	aagaacttga	gtcttctcat	caaggcagct	cagcagcagg	480										
184	acagtggcct	ctactgcctg	gaggtcacca	gtatatctgg	aaaagttcag	acagccacgt	540										
186	tccaggttt	tgtattt	aaagtggaga	aaccccgcct	acaggggcag	ggaaagatcc	600										
188	tggacagagg	gagatgcca	gtggctctgt	cttgc	cttgc	ggcaatgtgt	660										
190	cctatgctt	gtacagagg	agcaagctga	tccagacagc	agggAACCTC	ac	720										
192	acgaggagg	tgacattaat	ggcactcaca	catatacctg	caatgtcagc	aatcctgtt	780										
194	gctggaaag	ccacaccc	ctg	aatctcactc	aggactgtca	gaatgccc	840										
196	gattttggcc	gttttgg	atcatcg	ttcta	actgtt	ccctt	900										
198	cctgcttctg	tgtgtggagg	agaaagagga	aggagaagca	gtc	agagacc	960										
200	aattttgac	aatttacgaa	gatgtcaagg	atctgaaaac	caggagaat	cacgagcagg	1020										
202	agcagactt	tcctggagg	gggagcacca	tctactctat	gatcc	agtc	1080										
204	ctcccacgtc	acaagaac	ct	gcatatacat	tatattcatt	aattcagc	1140										
206	ctggatccag	gaagagg	acac	cacagcc	c	tcaatag	1200										
208	gaaagagtca	accta	aaagcc	cagaac	ctcgatt	gag	1260										
210	ttgatgtt	ttcct	tagtt	ctgcag	caat	tctcac	1320										
212	ttggaaatt	gcac	atgt	tg	g	gcac	1380										
214	agaggat	atg	aaattt	gtt	ttt	at	1440										
216	atgataa	gag	caagg	ctgtt	aaataat	ttcaat	1500										
218	ggaggggtt	ggtt	ttcac	aaaagg	ccac	attccaa	1560										
220	atgt	aaat	gtt	ttt	ttt	gaaaat	1620										
222	ttc	ttt	cc	ctct	ctg	tttgc	1680										
224	ttc	aa	cc	aa	cc	ccat	1740										
226	tct	gaa	ag	cc	tt	gg	1800										
228	cc	agg	gg	cc	ttt	tttgc	1860										
230	tac	ct	tc	gg	cc	tttgc	1920										
232	ca	ag	cc	cc	tttgc	tttgc	1980										
234	tt	gag	acc	cc	tttgc	tttgc	2040										
236	catt	tt	gg	cc	tttgc	tttgc	2100										
238	tat	tt	aa	gt	tttgc	tttgc	2160										
240	gc	ag	ct	gg	tttgc	tttgc	2220										
242	cgt	cagg	cc	tttgc	tttgc	tttgc	2280										
244	agg	aa	ag	cc	tttgc	tttgc	2340										
246	gc	aca	aa	gg	tttgc	tttgc	2400										
248	ac	gg	tg	tttgc	tttgc	tttgc	2440										
251	<210>	SEQ ID NO:	4														
252	<211>	LENGTH:	398														
253	<212>	TYPE:	PRT														
254	<213>	ORGANISM:	Mus musculus														
256	<400>	SEQUENCE:	4														
258	Met	Leu	Gly	Gln	Ala	Val	Phe	Thr	Thr	Phe	Leu	Leu	Leu	Arg	Ala		
259	1				5			10						15			
262	His	Gln	Gly	Gln	Asp	Cys	Pro	Asp	Ser	Ser	Ser	Glu	Glu	Val	Val	Gly	Val
263						20			25					30			
266	Ser	Gly	Lys	Pro	Val	Gln	Leu	Arg	Pro	Ser	Asn	Ile	Gln	Thr	Lys	Asp	
267						35			40					45			

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/667,859A

DATE: 09/30/2003

TIME: 07:50:47

Input Set : A:\08341.ST25.txt

Output Set: N:\CRF4\09302003\I667859A.raw

270 Val Ser Val Gln Trp Lys Lys Thr Glu Gln Gly Ser His Arg Lys Ile
 271 50 55 60
 274 Glu Ile Leu Asn Trp Tyr Asn Asp Gly Pro Ser Trp Ser Asn Val Ser
 275 65 70 75 80
 278 Phe Ser Asp Ile Tyr Gly Phe Asp Tyr Gly Asp Phe Ala Leu Ser Ile
 279 85 90 95
 282 Lys Ser Ala Lys Leu Gln Asp Ser Gly His Tyr Leu Leu Glu Ile Thr
 283 100 105 110
 286 Asn Thr Gly Gly Lys Val Cys Asn Lys Asn Phe Gln Leu Leu Ile Leu
 287 115 120 125
 290 Asp His Val Glu Thr Pro Asn Leu Lys Ala Gln Trp Lys Pro Trp Thr
 291 130 135 140
 294 Asn Gly Thr Cys Gln Leu Phe Leu Ser Cys Leu Val Thr Lys Asp Asp
 295 145 150 155 160
 298 Asn Val Ser Tyr Ala Phe Trp Tyr Arg Gly Ser Thr Leu Ile Ser Asn
 299 165 170 175
 302 Gln Arg Asn Ser Thr His Trp Glu Asn Gln Ile Asp Ala Ser Ser Leu
 303 180 185 190
 306 His Thr Tyr Thr Cys Asn Val Ser Asn Arg Ala Ser Trp Ala Asn His
 307 195 200 205
 310 Thr Leu Asn Phe Thr His Gly Cys Gln Ser Val Pro Ser Asn Phe Arg
 311 210 215 220
 314 Phe Leu Pro Phe Gly Val Ile Ile Val Ile Leu Val Thr Leu Phe Leu
 315 225 230 235 240
 318 Gly Ala Ile Ile Cys Phe Cys Val Trp Thr Lys Lys Arg Lys Gln Leu
 319 245 250 255
 322 Gln Phe Ser Pro Lys Glu Pro Leu Thr Ile Tyr Glu Tyr Val Lys Asp
 323 260 265 270
 326 Ser Arg Ala Ser Arg Asp Gln Gln Gly Cys Ser Arg Ala Ser Gly Ser
 327 275 280 285
 330 Pro Ser Ala Val Gln Glu Asp Gly Arg Gly Gln Arg Glu Leu Asp Arg
 331 290 295 300
 334 Arg Val Ser Glu Val Leu Glu Gln Leu Pro Gln Gln Thr Phe Pro Gly
 335 305 310 315 320
 338 Asp Arg Gly Thr Met Tyr Ser Met Ile Gln Cys Lys Pro Ser Asp Ser
 339 325 330 335
 342 Thr Ser Gln Glu Lys Cys Thr Val Tyr Ser Val Val Gln Pro Ser Arg
 343 340 345 350
 346 Lys Ser Gly Ser Lys Lys Arg Asn Gln Asn Tyr Ser Leu Ser Cys Thr
 347 355 360 365
 350 Val Tyr Glu Glu Val Gly Asn Pro Trp Leu Lys Ala His Asn Pro Ala
 351 370 375 380
 354 Arg Leu Ser Arg Arg Glu Leu Glu Asn Phe Asp Val Tyr Ser
 355 385 390 395
 358 <210> SEQ ID NO: 5
 359 <211> LENGTH: 1147
 360 <212> TYPE: DNA
 361 <213> ORGANISM: Mus musculus
 363 <400> SEQUENCE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/667,859A

DATE: 09/30/2003
TIME: 07:50:47

Input Set : A:\08341.ST25.txt
Output Set: N:\CRF4\09302003\I667859A.raw

364	atgttggggc	aagctgtcct	gttcacaacc	ttcctgctcc	tcagggctca	tcagggccaa	60
366	gactgccag	attcttctga	agaagtgggt	ggtgtctcag	gaaaggctgt	ccagctgagg	120
368	ccttccaaca	tacagacaaa	agatgtttct	gttcaatgga	agaagacaga	acagggctca	180
370	cacagaaaaaa	ttgagatcct	gaattggat	aatgatggtc	ccagttgtc	aatgttatct	240
372	tttagtgata	tctatggttt	tgattatggg	gattttgctc	tttagtatcaa	gtcagctaag	300
374	ctgcaagaca	gtggctacta	cctgctggag	atcaccaaca	caggcggaaa	agtgtgcaat	360
376	aagaacttcc	agcttcttat	acttgatcat	gttgagaccc	ctaacctgaa	ggcccagtgg	420
378	aagccctgga	ctaattggac	ttgtcaactg	ttttgtcct	gcttggtgac	caaggatgac	480
380	aatgtgagct	acgcctttt	gtacagaggg	agcactctga	tctccaatca	aaggaatagt	540
382	acccactggg	agaaccagat	tgacgcccgc	agcctgcaca	catacacctg	caacgttagc	600
384	aacagagcca	gctgggcaaa	ccacaccctg	aacttcaccc	atggctgtca	aagtgtccct	660
386	tcgaatttca	gatttctgcc	ctttggggtg	atcatcgta	ttctagttac	attatttctc	720
388	ggggccatca	tttgggtctg	tgtgtggact	aagaagagga	agcagttaca	gttcagccct	780
390	aaggaacctt	tgacaatata	tgaatatgtc	aaggactcac	gagccagcag	ggatcaacaa	840
392	gggacaaaga	gaattggaca	ggcgtgttgc	tgaggtgctg	gagcagttgc	cacagcagac	900
394	tttccctgga	gatagaggca	ccatgtactc	tatgatacag	tgcaagcctt	ctgattccac	960
396	atcacaagaa	aaatgtacag	tatattcagt	agtccagct	tccaggaagt	ctggatccaa	1020
398	gaagaggaac	cagaactatt	ccttaagttg	taccgtgtac	gaggaggttgc	gaaacccatg	1080
400	gctcaaagct	cacaaccctg	ccaggctgag	ccgcagagag	ctggagaact	ttgtatgtcta	1140
402	ctcctag						1147

405 <210> SEQ ID NO: 6

406 <211> LENGTH: 451

407 <212> TYPE: PRT

408 <213> ORGANISM: Artificial Sequence

410 <220> FEATURE:

411 <223> OTHER INFORMATION: Synthetic

414 <220> FEATURE:

415 <221> NAME/KEY: PEPTIDE

416 <222> LOCATION: (1)..(221)

417 <223> OTHER INFORMATION: human NAIL sequences

419 <220> FEATURE:

420 <221> NAME/KEY: PEPTIDE

421 <222> LOCATION: (222)..(451)

422 <223> OTHER INFORMATION: human Fc sequences

424 <400> SEQUENCE: 6

426	Met	Leu	Gly	Gln	Val	Val	Thr	Leu	Ile.	Leu	Leu	Leu	Lys	Val		
427	1				5					10				15		
430	Tyr	Gln	Gly	Lys	Gly	Cys	Gln	Gly	Ser	Ala	Asp	His	Val	Val	Ser	Ile
431						20			25				30			
434	Ser	Gly	Val	Pro	Leu	Gln	Leu	Gln	Pro	Asn	Ser	Ile	Gln	Thr	Lys	Val
435						35			40				45			
438	Asp	Ser	Ile	Ala	Trp	Lys	Lys	Leu	Leu	Pro	Ser	Gln	Asn	Gly	Phe	His
439						50			55				60			
442	His	Ile	Leu	Lys	Trp	Glu	Asn	Gly	Ser	Leu	Pro	Ser	Asn	Thr	Ser	Asn
443	65					70				75				80		
446	Asp	Arg	Phe	Ser	Phe	Ile	Val	Lys	Asn	Leu	Ser	Leu	Ile	Lys	Ala	
447						85			90				95			
450	Ala	Gln	Gln	Gln	Asp	Ser	Gly	Leu	Tyr	Cys	Leu	Glu	Val	Thr	Ser	Ile
451						100			105				110			

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/667,859A

DATE: 09/30/2003

TIME: 07:50:48

Input Set : A:\08341.ST25.txt

Output Set: N:\CRF4\09302003\I667859A.raw